REMARKS

Initially, Applicants express appreciation to the Examiner for the detailed Official Action provided.

Upon entry of the present paper, claims 1 and 8 will have been amended and claims 9-12 will have been added. Thus, claims 1 and 8-12 will be pending in the present application, with claims 1 and 8 being in independent form. The herein-contained amendments should not be considered an acquiescence in the propriety of the outstanding rejection. Rather, the claims have been amended solely to advance prosecution of the present application to allowance. Furthermore, it is submitted that the amendments contain no prohibited new matter. Specifically, new claims 9-12 are submitted to be supported at least by page 21, lines 13-18 of the present application as filed (¶[0190] of corresponding U.S. Pat. Appl. Pub. No. 2008/0285947).

Applicants address the pending rejection below and respectfully request reconsideration and withdrawal thereof together with an indication of the allowability of claims 1 and 8-12 (*i.e.*, all pending claims) in the next Official communication. Such action is respectfully requested and is believed to be appropriate for at least the reasons provided below.

Rejection of Claims 1 and 8 under 35 U.S.C. § 103

In the outstanding Official Action, claims 1 and 8 are rejected under 35 U.S.C. § 103(a) as being obvious by U.S. Pat. No. 7,401,100 to Jung et al. (hereinafter "JUNG"), U.S. Pat. No. 5,870,523 to Kikuchi et al. (hereinafter "KIKUCHI"), and U.S. Pat. No. 6,269,373 to Apte et al. (hereinafter "APTE"). Applicants respectfully traverse the rejection.

The present application generally relates to an apparatus and method for playing a video stream recorded on a recording medium. The video stream includes control information that

specifies a location on a time axis relating to playback timing of a video of the video stream. The recording medium includes a computer program that is executed during playback of the video stream. The computer program includes predetermined codes that designate a plurality of images and rendition times corresponding to each of the images.

A platform includes a processor and an image selecting native code segment. When the computer program is executed during playback of the video stream, the platform interprets and executes the predetermined codes by converting the predetermined codes into native codes that are executable by the processor. The processor executes the native codes for storing the images and the rendition time corresponding to each of the images in storage. The platform causes the processor to execute the image selecting native code for selecting a selected image to be rendered from among the images stored in the storage based on a specified location on the time axis relating to the playback timing of the video included in the control information and the rendition time corresponding to each of the images stored in the storage, and storing the selected image in an image plane. Thereafter, the selected image is superimposed on the video during the playback of the video stream.

In this regard, independent claims 1 and 8 of the present application recite, respectively, a playback apparatus and playback method, each including a combination of the features described above. According to each of independent claims 1 and 8, and as further clarified by the amendments to independent claims 1 and 8 as set forth in the present paper, the image selecting native code is pre-stored on the platform and is executable by the processor without conversion. Such a feature is submitted to be supported at least by page 4, lines 23-28 of the present application as submitted on May 31, 2006 (¶[0016] of corresponding U.S. Pat. Appl. Pub. No. 2008/0285947).

Applicants respectfully submit that the image selecting native code, as recited by the claimed combinations of claims 1 and 8, is not disclosed or rendered obvious by JUNG, KIKUCHI, and APTE, whether considered alone or together in any proper combination thereof. That is, Applicants respectfully submit that JUNG, KIKUCHI, and APTE, alone or in combination, fail to disclose an image selecting native code that is pre-stored and executable by the processor without conversion for selecting the selected image to be rendered from among the images based on a specified location on the time axis relating to the playback timing of the video and the rendition time of each of the images, as required by independent claims 1 and 8.

According to a non-limiting and advantageous effect of such features, predetermined codes are converted into native codes for storing the images and the rendition time of each of the images, however, the image selecting native code is not converted into a native code such that an image or images to be rendered may be selected by the image selecting native code at a high speed, when compared with a compiler that generates higher-level source code and an interpreter that sequentially interprets and executes program codes for selecting images.

In the outstanding Official Action, in the Response to Arguments section and on page 4, lines 16-23, it is generally asserted that such a feature is disclosed by JUNG. Specifically, it appears to be asserted that the Java script of JUNG discloses such a feature. Applicants respectfully disagree.

JUNG discloses an interactive contents synchronization unit 13 that interprets interactive contents and determines whether to synchronize multimedia elements in the interactive contents with AV contents (*see, e.g.,* JUNG col. 3, lines 56-64 and col. 4, lines, 16-24). According to JUNG, a markup document is provided by a manufacturer of the interactive contents which indicates when the interactive contents include multimedia elements in addition to the AV

contents (*see, e.g.,* JUNG col. 6, lines 36-40 and col. 7, lines 6-10). The interactive contents synchronization unit 13 interprets the markup document, parses the interactive contents that are expressed by the markup document, creates a document object model tree including the interactive contents that are expressed by the markup document, and interprets the document object model tree to determine whether multimedia elements are to be synchronized with the AV contents (JUNG col. 5, lines 10-19). According to JUNG, the information about synchronizing the multimedia elements with the AV contents may be included in the markup document using various methods, such as a Java script (JUNG col. 7, lines 36-44).

At least in view of the above, Applicants respectfully submit that, contrary to the Examiner's assertions in the Response to Arguments section and on page 4, lines 16-23 of the Official Action, the Java script of JUNG cannot be reasonably interpreted to correspond to the image selecting native code of Applicants'independent claims 1 and 8, as recited in the claimed combinations. That is, JUNG explicitly discloses that the markup document is provided by the manufacturer of the interactive contents (*see, e.g.,* JUNG col. 7, lines 6-10). In this regard, independent claims 1 and 8 of the present application recite that the image selecting native code is pre-stored on the platform. Moreover, JUNG appears to disclose that the interactive contents synchronization unit 13 interprets the markup document and parses the interactive contents (*see, e.g.,* JUNG col. 5, lines 10-12). In contradistinction, independent claims 1 and 8 of the present application recite that the image selecting native code is executable by the processor for selecting a selected image to be rendered and stored.

Accordingly, at least in view of the above and contrary to the assertions in the Official Action, Applicants respectfully submit that JUNG does not disclose or render obvious the image

selecting native code as recited in the claimed combinations of Applicants' independent claims 1 and 8.

As for APTE, this document discloses a Java virtual machine (JVM) that resides in a memory (APTE col. 11, lines 30-32). The JVM allows a Java program to be executed on a different platform other than the platform for which the code was compiled (APTE col. 11, lines 33-36). For a specific Java application, a Java compiler is used to generate bytecode instructions (*i.e.*, intermediate codes independent from the machine) that are non-specific to a particular platform (APTE col. 11, lines 44-46). A bytecode is a machine independent code that is generated by the Java compiler and decoded and executed by a Java interpreter (APTE col. 11, lines 46-48). The Java interpreter in the JVM decodes (*i.e.*, converts into native codes) and executes the bytecode instructions (APTE col. 11, lines 48-49). As disclosed by APTE, "these bytecode instructions are designed to be easy to interpret on any computer and easily translated on the fly into native machine code" (APTE col. 11, lines 50-52).

In the outstanding Official Action, in the Response to Arguments section and on page 5, lines 11-16, it appears to be asserted that the bytecode instructions of APTE disclose the image selecting native code of independent claims 1 and 8 of the present application. That is, the Examiner asserts that "the bytecodes disclosed by Apte clearly corresponds [sic] to the recited native code because besides being pre-stored, the bytecodes are native code with respect to the JVM (Java Virtual Machine)" (Official Action page 3, lines 5-8).

Initially, Applicants note that, in general, program codes interpreted and executed by a JVM are referred to as bytecodes, whereas program codes executable by a processor are referred to as native codes. Therefore, those skilled in the art would clearly understand that the bytecodes, as disclosed by APTE, are different from native codes. At least in this regard, Applicants

respectfully submit that the bytecodes of APTE are different from the image selecting native code of the present application. Moreover, as described above, the bytecodes are converted into native codes by the Java interpreter. As such, it is submitted that the bytecodes of APTE cannot be reasonably interpreted to correspond to the image selecting native code of Applicants' independent claims 1 and 8 that is pre-stored on the platform and executable by the processor without conversion for selecting the selected image to be rendered from among the images based on a specified location on the time axis relating to the playback timing of the video and the rendition time of each of the images.

With respect to KIKUCHI, this document is merely relied upon to allegedly disclose a time table that specifies a location on a time axis relating to playback timing of a video of a video stream, wherein the time table includes a rendition time of video object units (VOBUs). KIKUCHI, however, does not appear to cure the above-mentioned deficiencies of JUNG and APTE.

Accordingly, at least in view of the above, it is submitted that JUNG, KIKUCHI, and APTE, alone or in combination, fail to disclose or render obvious at least the image selecting native code of independent claims 1 and 8 of the present application, as recited in the claimed combinations. Therefore, it is respectfully submitted that the rejection of these claims is improper, and thus, it is requested that the rejection be withdrawn in the next Official communication.

New Claims 9-12

Claims 9-12 are each dependent from one of independent claims 1 and 8, which are submitted to be allowable for at least the reasons discussed *supra*. Accordingly, it is submitted that these claims are also allowable for at least the reasons discussed *supra*. Moreover, these

claims recite additional features which further define these claims over the applied documents. Accordingly, it is further requested that the rejection of these claims be withdrawn, and that these claims be indicated to be allowable in the next Official Action.

At least in view of the above, it is respectfully submitted that each and every pending claim of the present application (*i.e.*, claims 1 and 8-12) meets the requirements for patentability. Thus, the Examiner is respectfully requested to withdraw the outstanding rejection and to indicate the allowance of each and every pending claim in the present application.
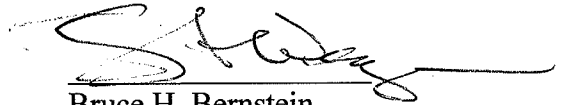
CONCLUSION

In view of the fact that none of the art of record, whether considered alone, or in any proper combination thereof, discloses or renders obvious the present invention as now defined by the pending claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Applicants note that the amendments to the claims are to be considered merely clarifying amendments that are cosmetic in nature, and are not intended to narrow the scope of the claims. Accordingly, this amendment should not be considered a decision by Applicants to narrow the claims in any way.

Should an extension of time be necessary to maintain the pendency of this application, including any extensions of time required to place the application in condition for allowance by an Examiner's Amendment, the Commissioner is hereby authorized to charge any additional fee to Deposit Account No. 19-0089.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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